AMENDMENTS TO THE CLAIMS

Please amend Claims 20, 26-28, 33, 34, 36, and 39-42. The following is a complete listing of all claims:

1-19. (canceled)

20. (currently amended) A method of hydrolyzing an optically pure cyanohydrin to its corresponding α-hydroxycarboxylic acid ~~in a reaction mixture~~ comprising, combining in a reaction mixture:

the optically pure cyanohydrin;

water;

at least one mineral acid that catalyzes the hydrolysis; and

at least one hydrocarbon solvent;

wherein the reaction mixture comprises less than 10% by weight of an organic solvent other than the at least one hydrocarbon solvent.

21. (previously presented) The method of claim 20, wherein the reaction mixture comprises less than 5% by weight of an organic solvent other than the at least one hydrocarbon solvent.

22. (previously presented) The method of claim 20, wherein the amount of water in the reaction mixture ranges from 7 equivalents to 50 equivalents relative to the cyanohydrin.

23. (previously presented) The method of claim 20, wherein the amount of water in the reaction mixture ranges from 10 equivalents to 40 equivalents relative to the cyanohydrin.

24. (currently amended) The method of claim 20, wherein the amount of the at least one mineral acid in the reaction mixture ~~ranges from 1.5 equivalents to~~ is less than 10 equivalents relative to the cyanohydrin.

25. (previously presented) The method of claim 20, wherein the amount of the at least one mineral acid in the reaction mixture ranges from 2 equivalents to 7 equivalents relative to the cyanohydrin.

26. (currently amended) The method of claim 20, wherein the at least one mineral acid is selected from hydrochloric acid, sulfuric acid, nitric acid, ~~boracic~~ boric acid, phosphoric acid, and perchloric acid.

27. (currently amended) The method of claim 20, wherein the at least one hydrocarbon solvent is selected from a saturated or unsaturated linear or branched chain hydrocarbon ~~comprising~~ consisting essentially of 5 to 16 carbon atoms, a saturated or unsaturated cyclic hydrocarbon with or without a side chain ~~comprising~~ consisting essentially of 6 to 16 carbon atoms, and a saturated or unsaturated linear or branched chain hydrocarbon substituted with a cyclic hydrocarbon ~~comprising~~ consisting essentially of 5 to 16 carbon atoms.

28. (currently amended) The method of claim 20, wherein the at least one hydrocarbon solvent comprises an aromatic hydrocarbon ~~comprising~~ consisting essentially of 6 to 16 carbon atoms.

29. (previously presented) The method of claim 28, wherein the aromatic hydrocarbon is selected from benzene, toluene, and xylene.

30. (previously presented) The method of claim 20, wherein the maximum temperature of the hydrolysis reaction ranges from 40 °C to 90 °C.

31. (previously presented) The method of claim 20, wherein the maximum temperature of the hydrolysis reaction ranges from 50 °C to 80 °C.

32. (previously presented) The method of claim 20, further comprising separating and removing the hydrocarbon solvent phase from the reaction mixture following the hydrolysis reaction.

33. (currently amended) A method of hydrolyzing an optically pure cyanohydrin to its corresponding α-hydroxycarboxylic acid ~~in a reaction mixture~~ comprising, combining in a reaction mixture:

the optically pure cyanohydrin;

water wherein the amount of water comprising the reaction mixture ranges from 10 equivalents to 40 equivalents relative to the optically pure cyanohydrin;

at least one mineral acid selected from hydrochloric acid, sulfuric acid, nitric acid, ~~boracic~~ boric acid, phosphoric acid, and perchloric acid, wherein the amount of the at least one mineral acid in the reaction mixture ranges from 2 equivalents to 7 equivalents relative to the optically pure cyanohydrin; and

at least one aromatic solvent selected from benzene, toluene, and xylene;

wherein the reaction mixture comprises less than 5% by weight of an organic solvent other than the hydrocarbon solvent, and

wherein the maximum temperature of the hydrolysis reaction ranges from 50 °C to 80 °C.

34. (currently amended) A method of crystallizing optically ~~active~~ pure α-hydroxycarboxylic acid in an aqueous solution comprising:

suspending the optically ~~active~~ pure α-hydroxycarboxylic acid in an aqueous solution; and

cooling the aqueous solution to a temperature of less than 30 °C at a rate of 0.5 °C/min or less, to produce crystalline optically ~~active~~ pure α-hydroxycarboxylic acid.

35. (previously presented) The method of claim 34, wherein the aqueous solution comprises at least one non-miscible organic solvent.

36. (currently amended) The method of claim 35, wherein the at least one non-miscible organic solvent ~~comprising~~ is selected from at least one hydrocarbon solvent.

37. (previously presented) The method of claim 36, wherein the at least one hydrocarbon solvent is selected from benzene, toluene, o-xylene, m-xylene, p-xylene, n-hexane, n-heptane, and n-octane.

38. (previously presented) The method of claim 35, wherein the ratio of the volume of the aqueous solution to the volume of the non-miscible organic solvent ranges from 1 : 0.05 to 1 : 1.

39. (currently amended) The method of claim 34, wherein the crystalline optically ~~active~~ pure α-hydroxycarboxylic acid exhibits a packing density of at least 0.5 g/cm^3.

40. (currently amended) The method of claim 34, wherein the crystalline optically ~~active~~ pure α-hydroxycarboxylic acid exhibits a packing density of at least 0.6 g/cm^3.

41. (currently amended) The method of claim 34, wherein the optically ~~active~~ pure α-hydroxycarboxylic acid is produced according to the method of claim 20.

42. (currently amended) The method of claim 34, wherein the optically ~~active~~ pure α-hydroxycarboxylic acid is produced according to the method of claim 33.